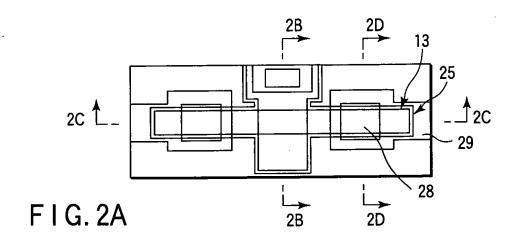
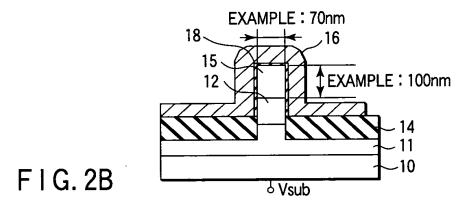
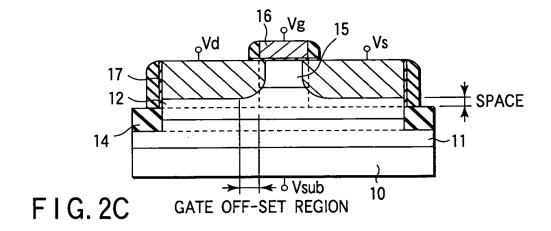
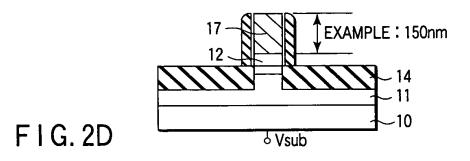


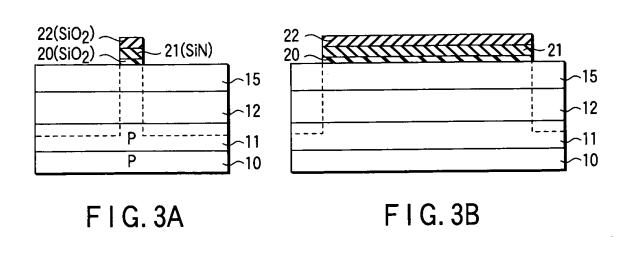
F I G. 1

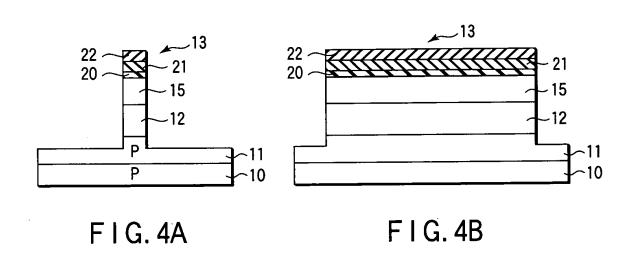


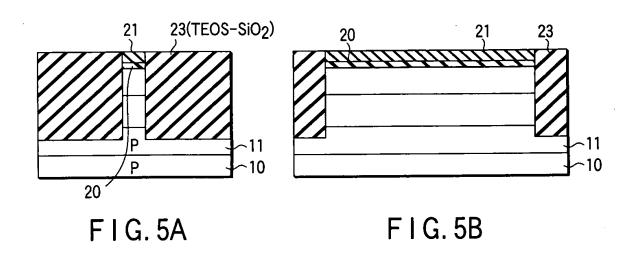


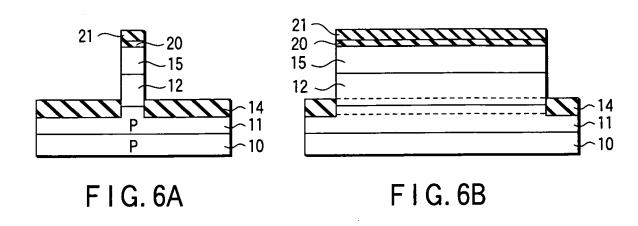


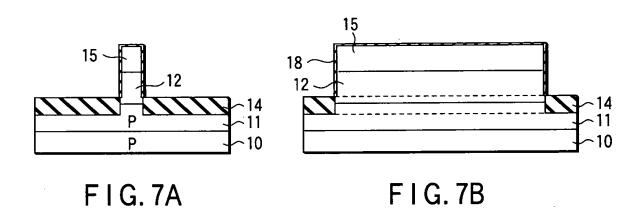


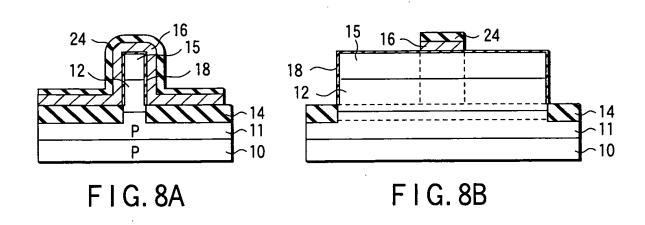


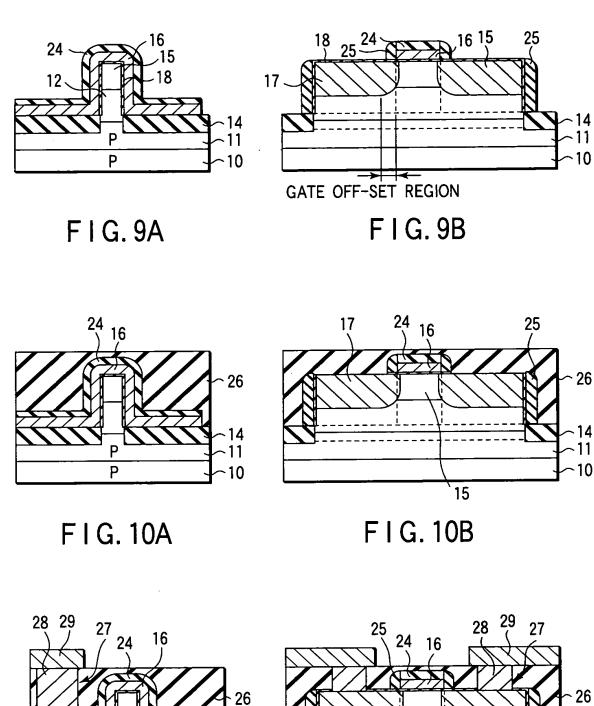


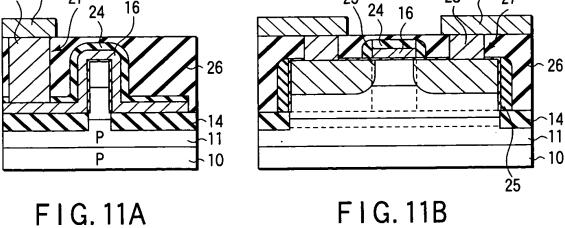


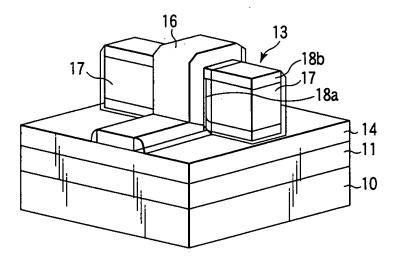




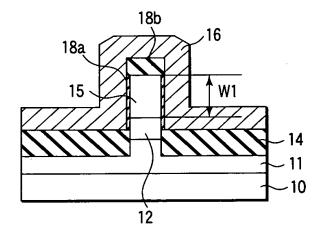




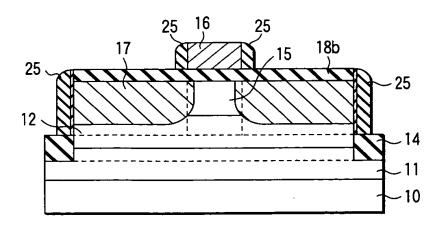




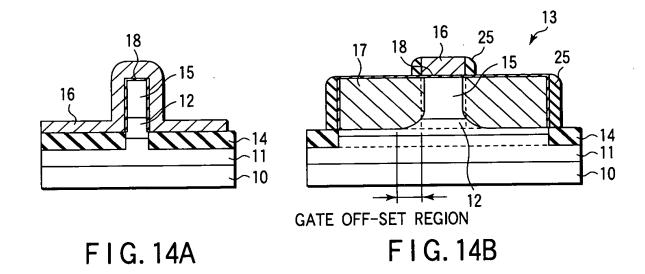
F I G. 12

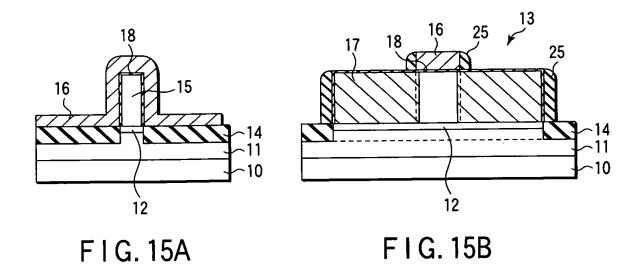


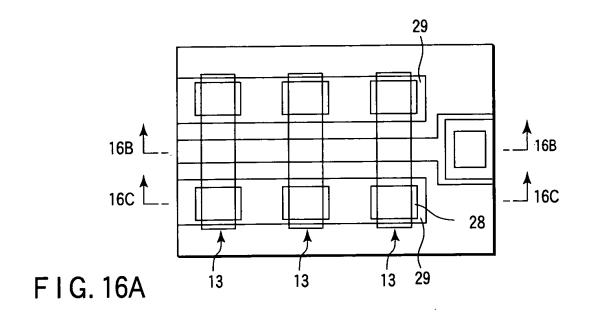
F I G. 13A

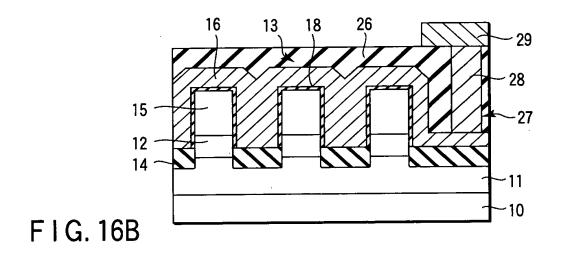


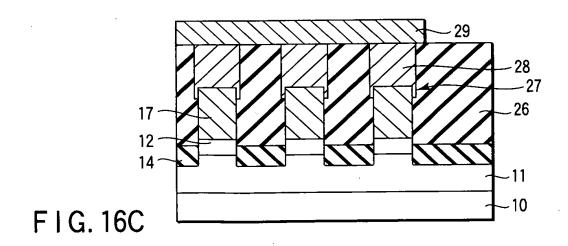
F I G. 13B

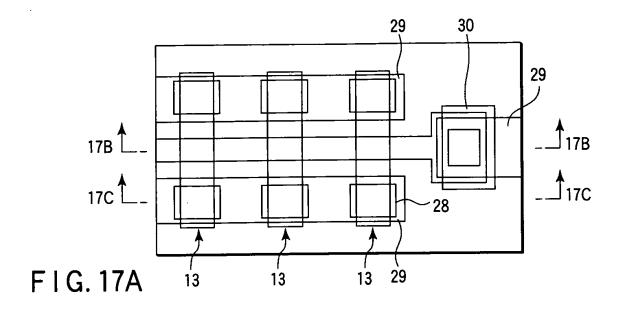


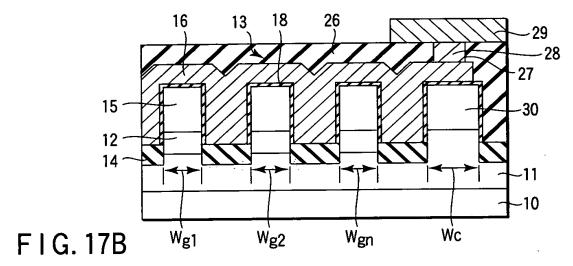


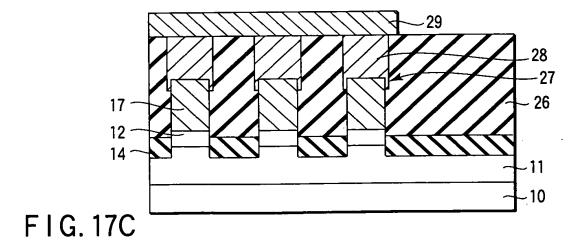


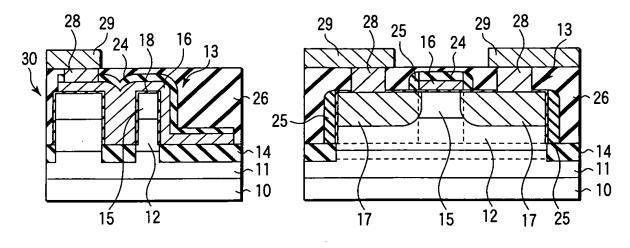






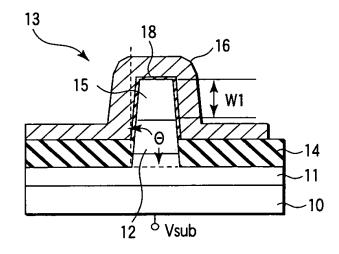






F I G. 18A

F I G. 18B



F I G. 19A

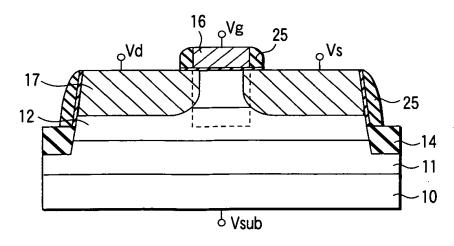
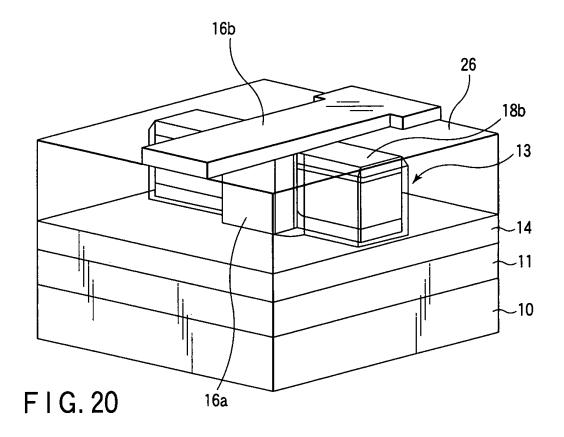
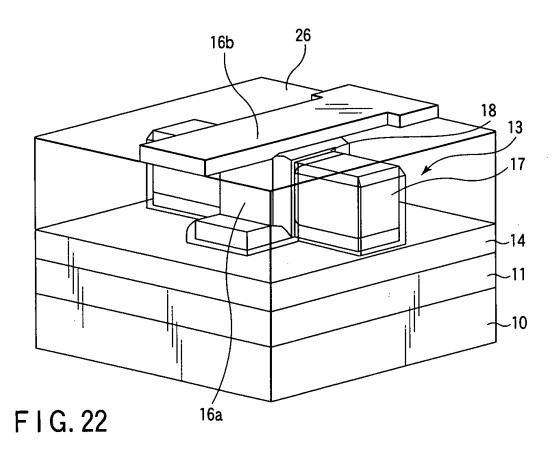
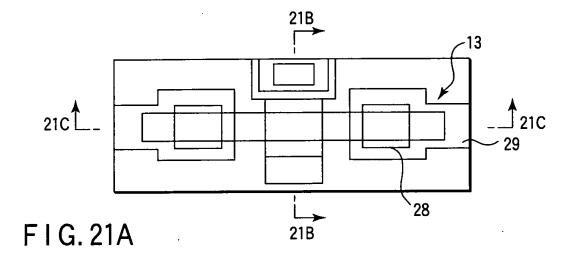
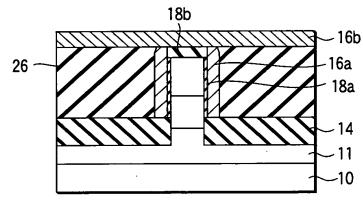


FIG. 19B

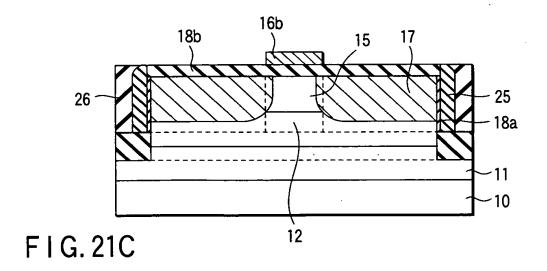


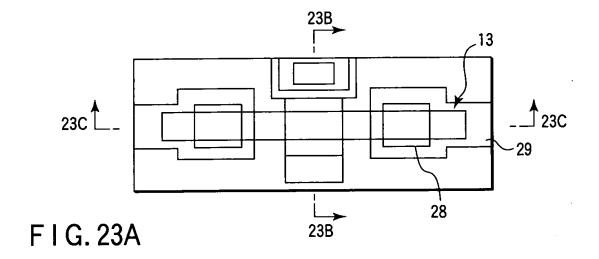


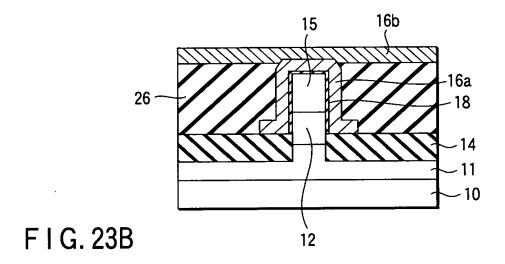


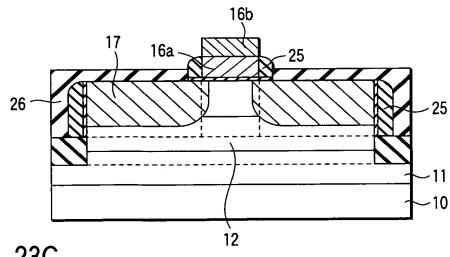


F I G. 21B









F I G. 23C

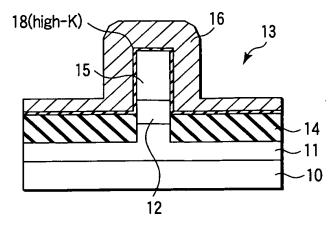
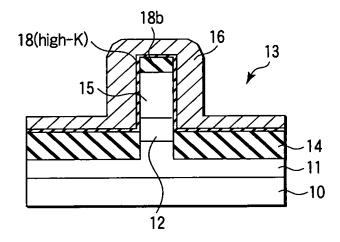


FIG. 24



F I G. 25

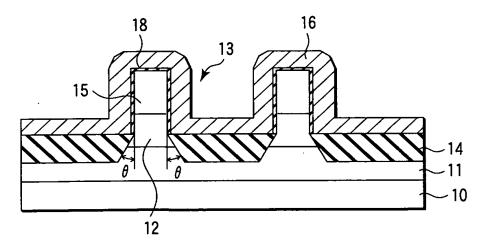
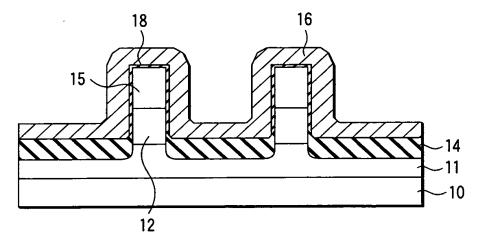


FIG. 26



F I G. 27

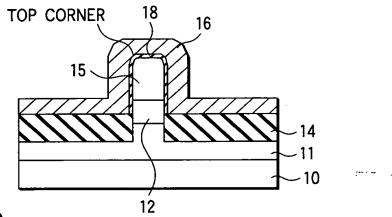


FIG. 28

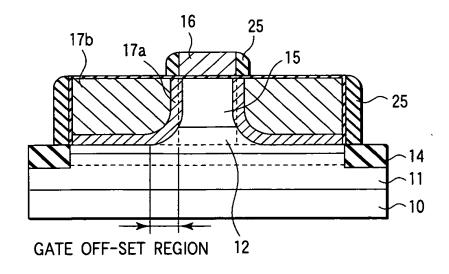
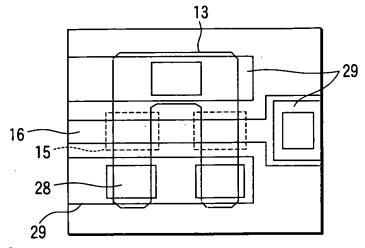
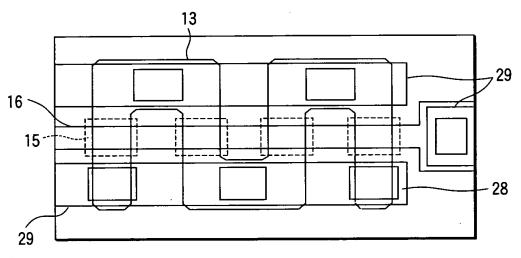


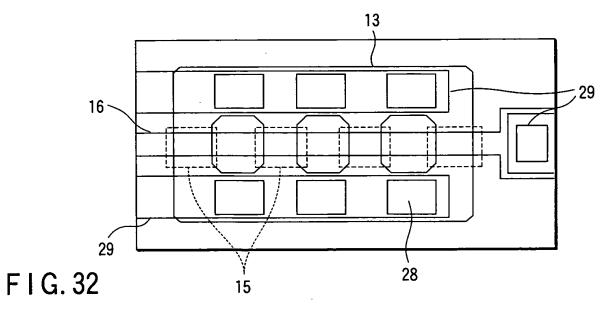
FIG. 29



F I G. 30



F I G. 31



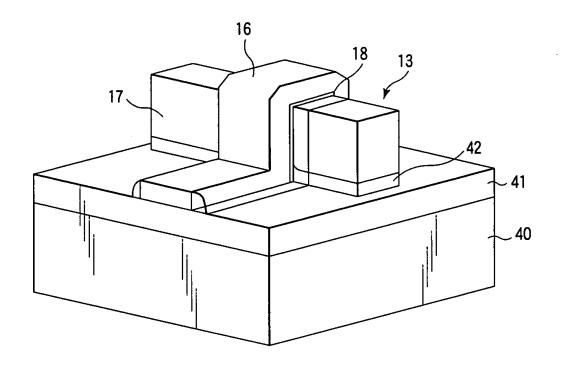


FIG. 33

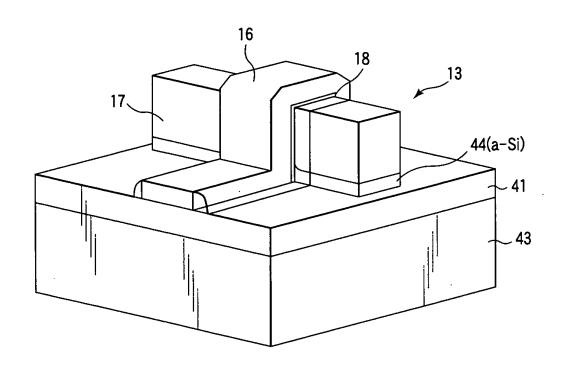
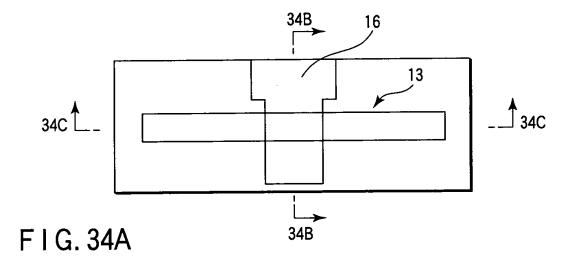


FIG. 35



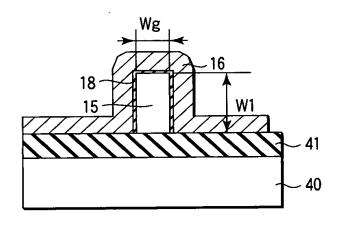
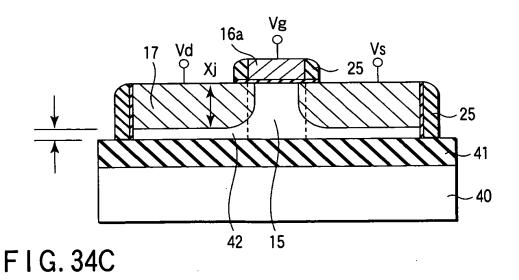
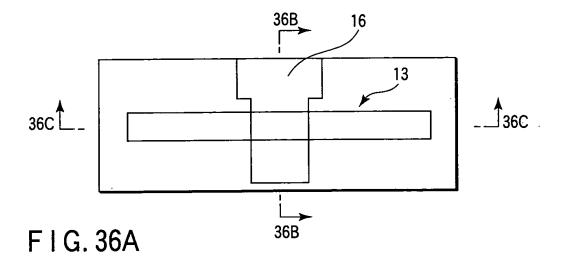
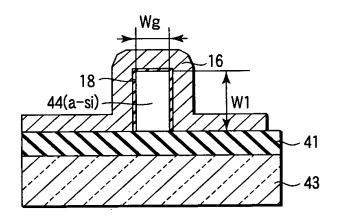


FIG. 34B







F I G. 36B

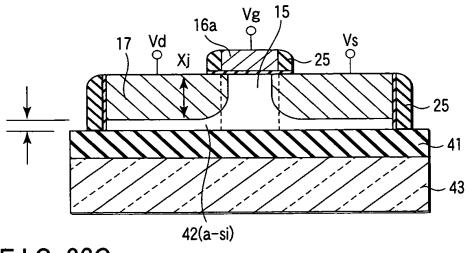


FIG. 36C

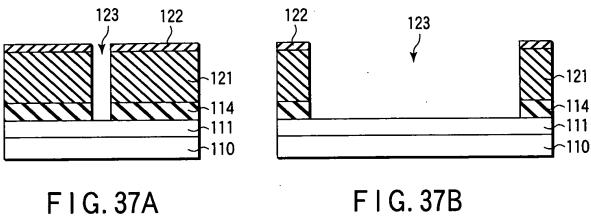


FIG. 37A

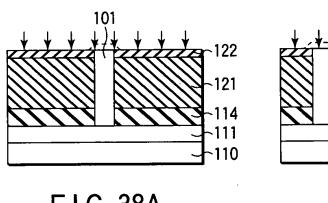


FIG. 38A

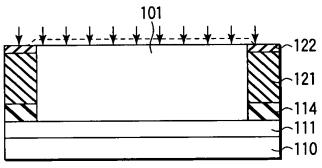


FIG. 38B

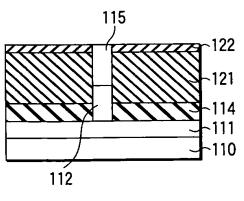


FIG. 39A

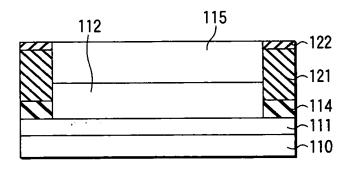
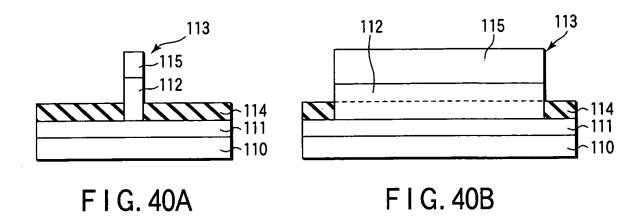
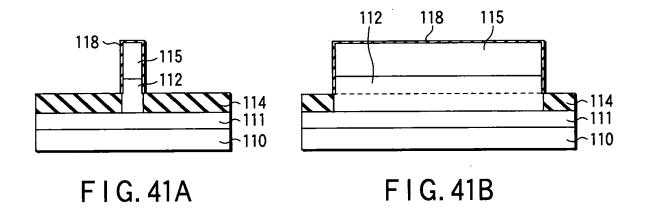
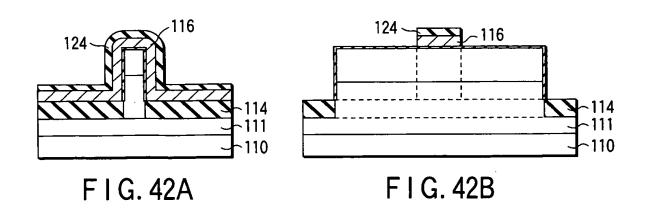
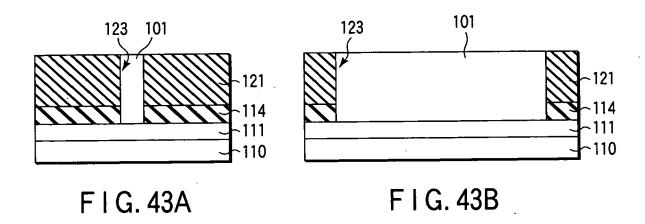


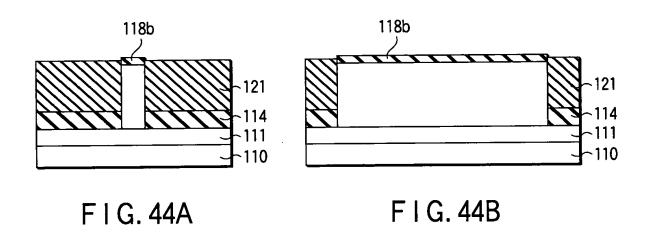
FIG. 39B

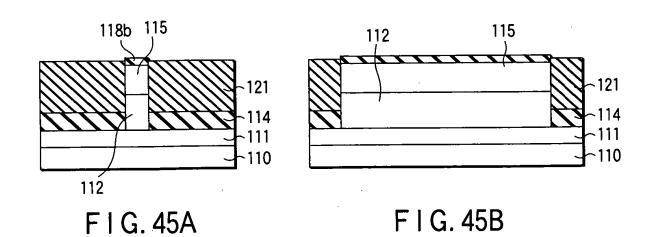


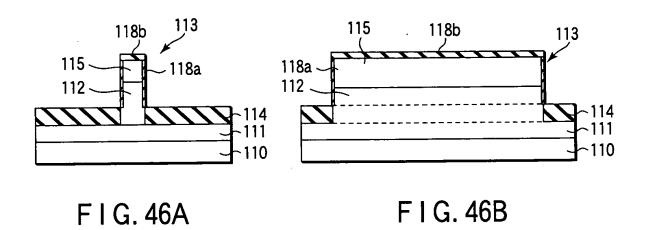


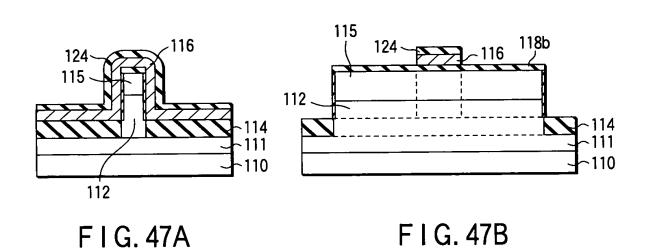


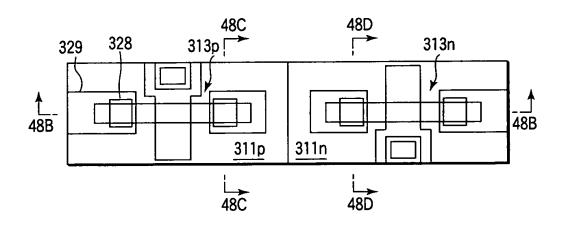












F I G. 48A

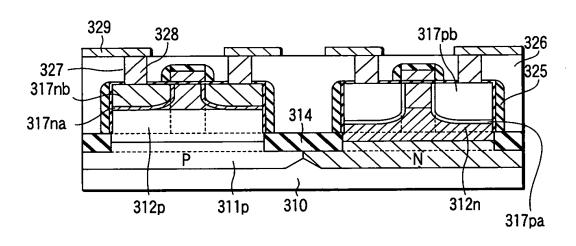
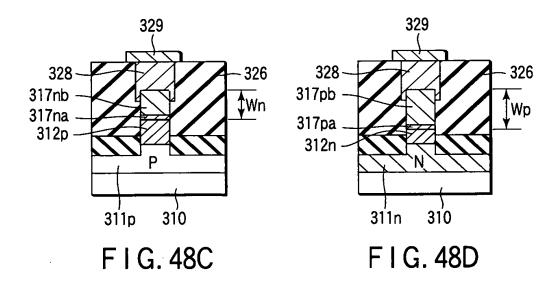


FIG. 48B



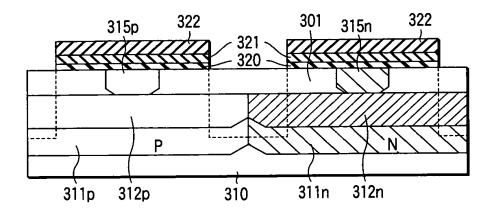


FIG. 49

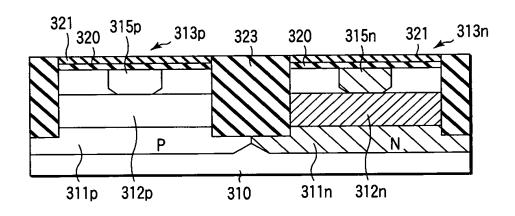
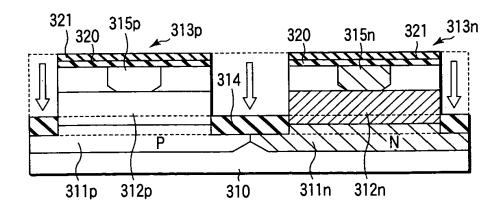


FIG. 50



F I G. 51

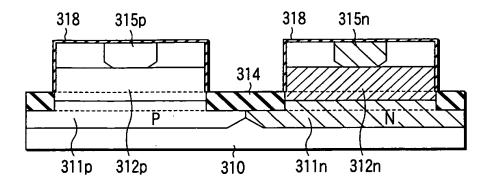
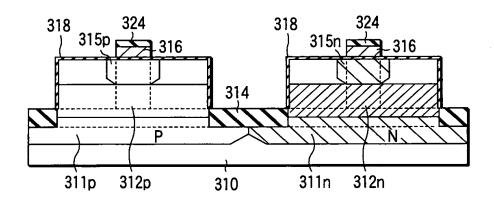


FIG. 52



F I G. 53

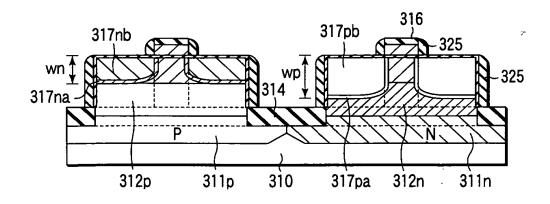
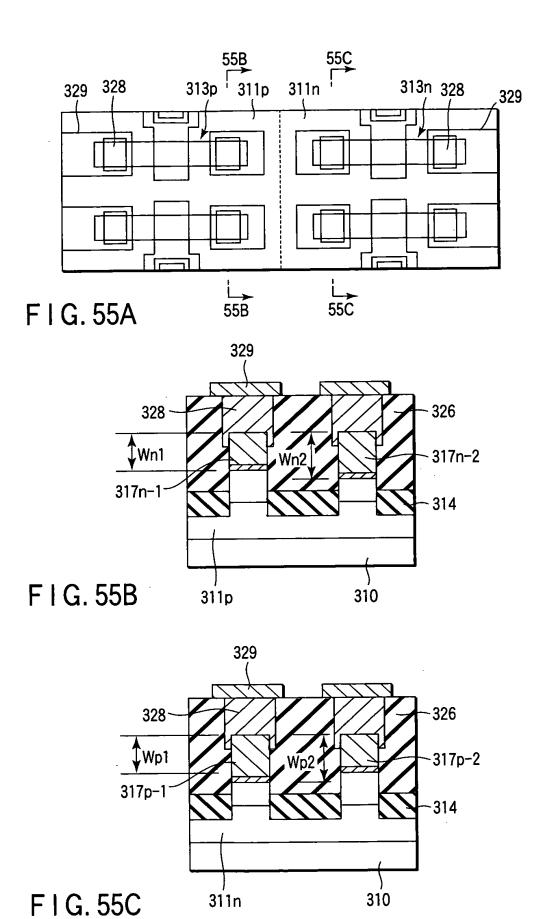
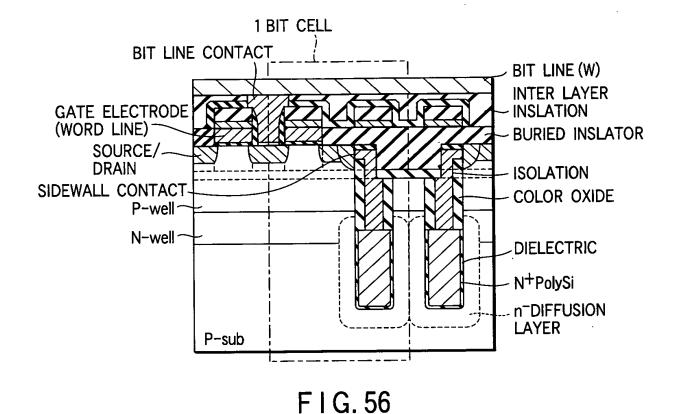


FIG. 54





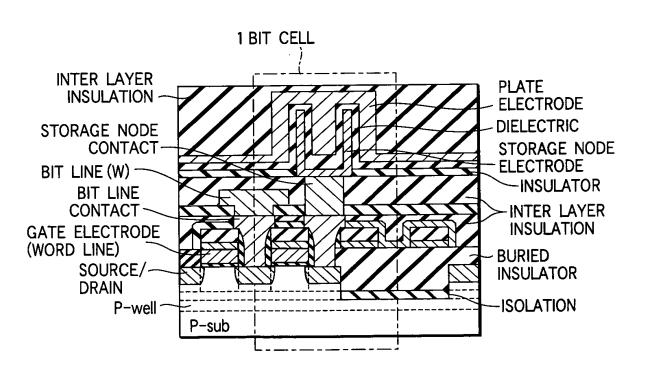
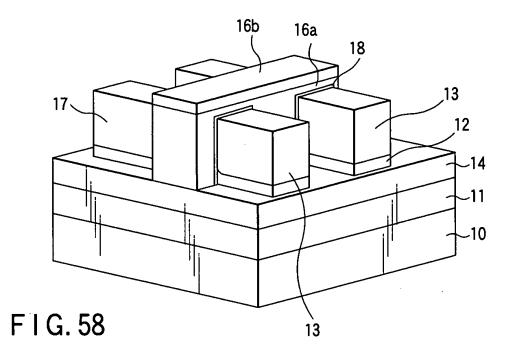
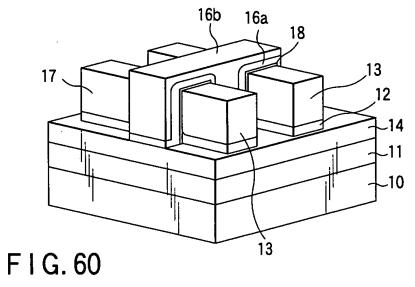


FIG. 57





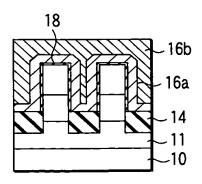
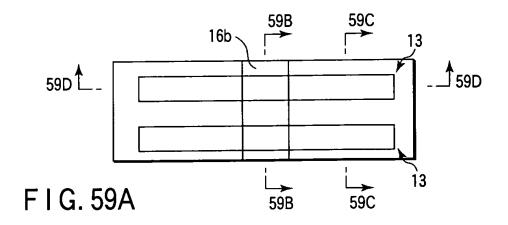
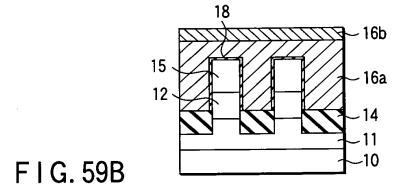


FIG. 61





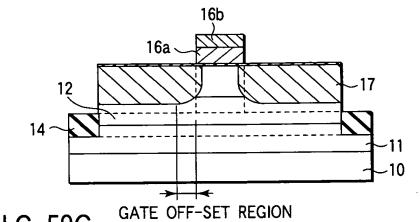
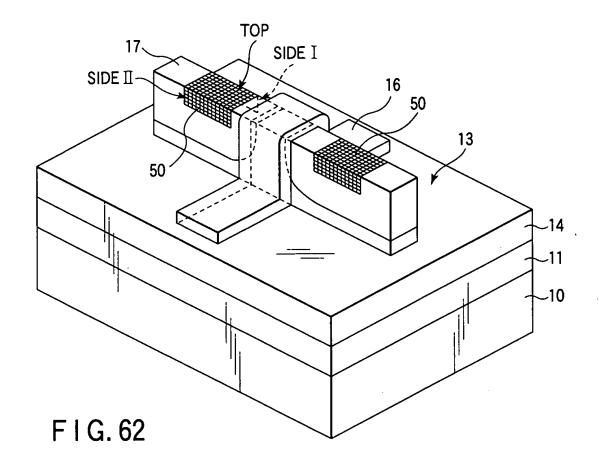


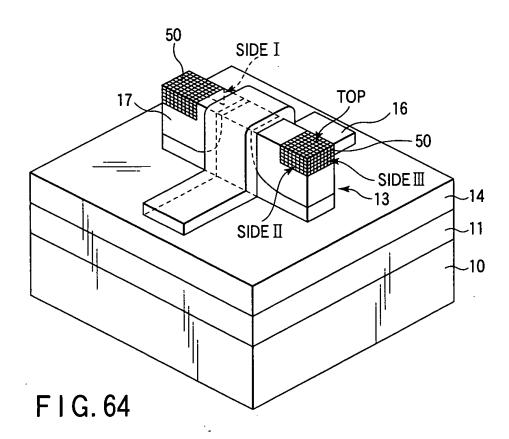
FIG. 59C

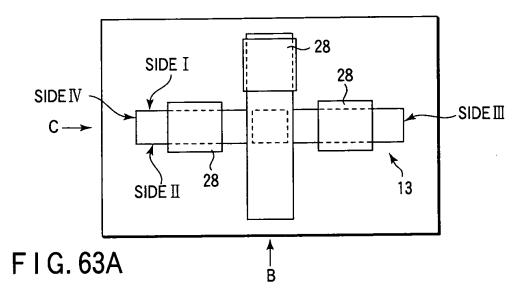
GATE OFF-SET REGION

17
17
S/D DIFFUSION
LAYER DEPTH

14
11
11
10







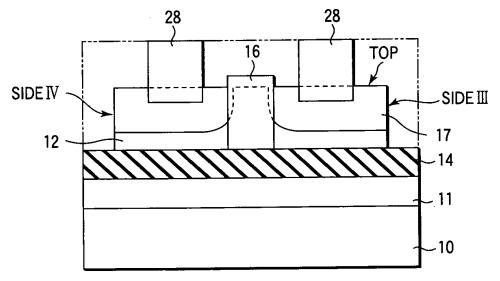
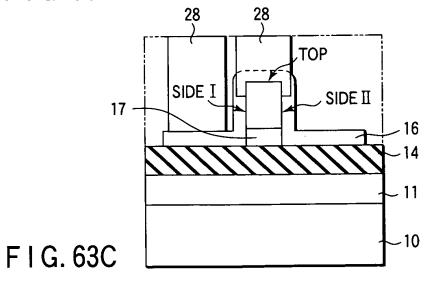
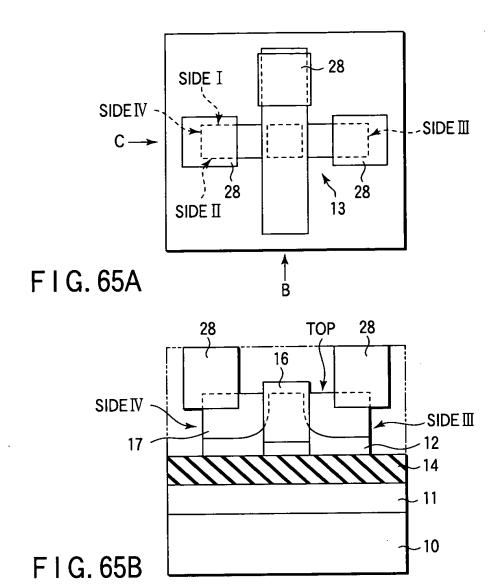
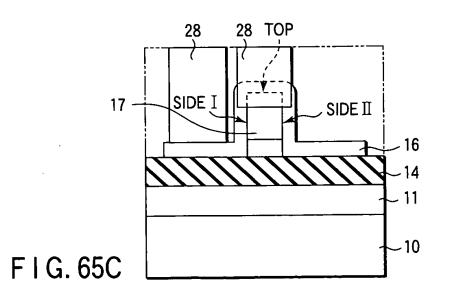


FIG. 63B







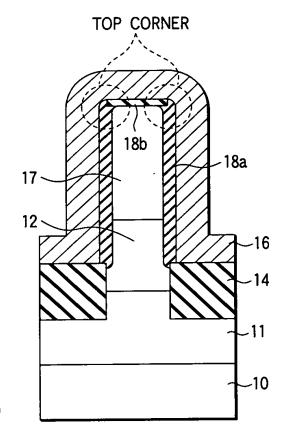


FIG. 66

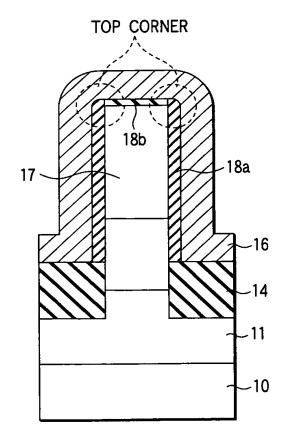
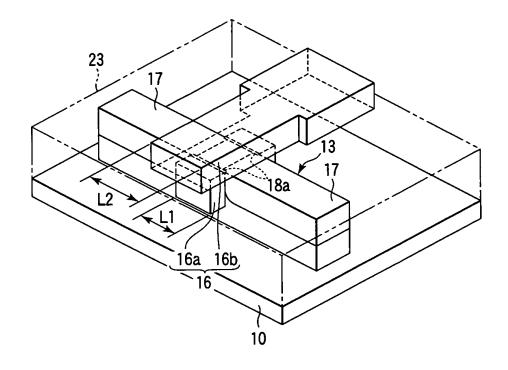
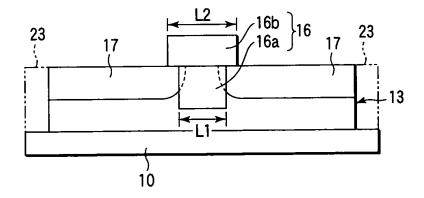


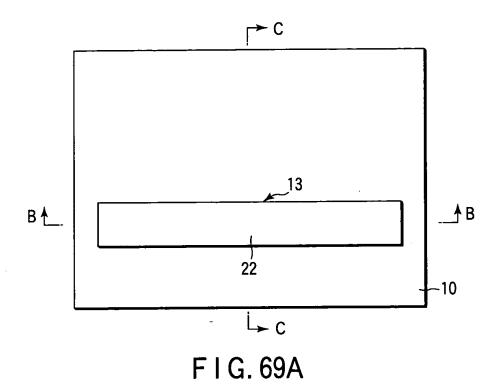
FIG. 67

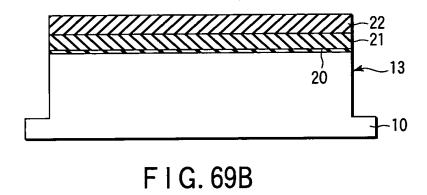


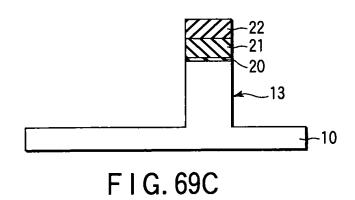
F I G. 68A

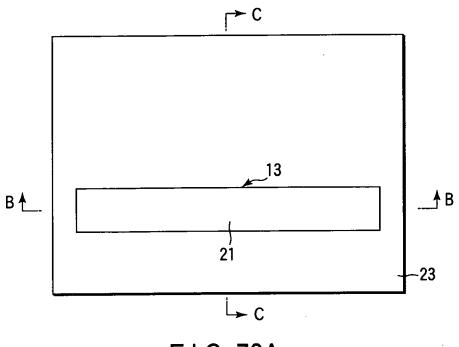


F I G. 68B

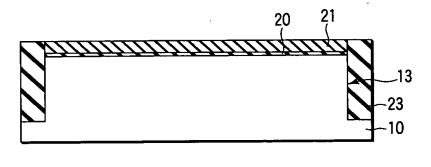








F I G. 70A



F I G. 70B

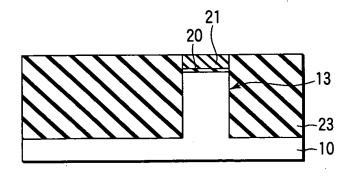
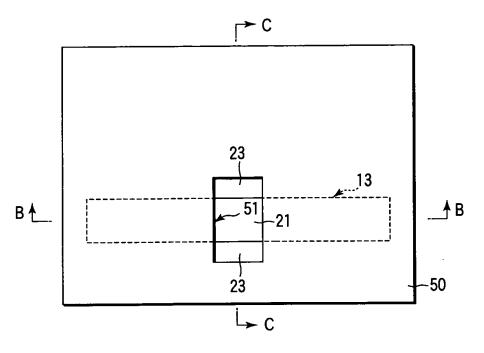
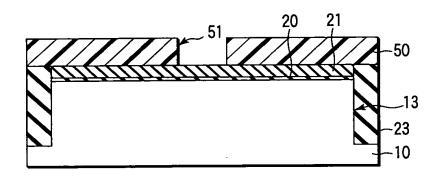


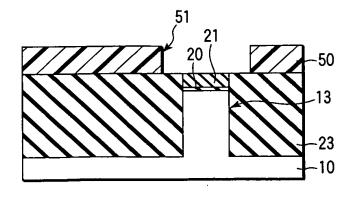
FIG. 70C



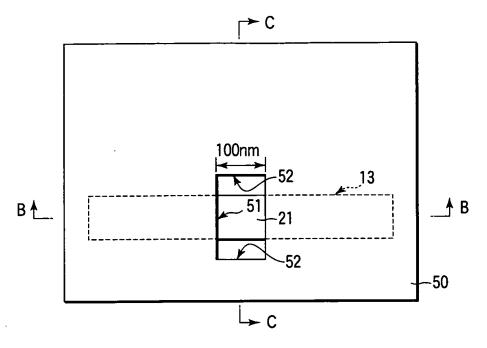
F I G. 71A



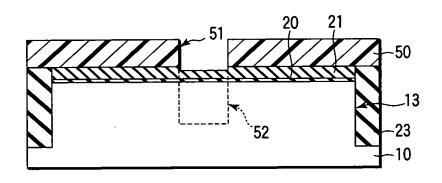
F I G. 71B



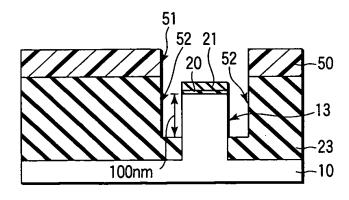
F I G. 71C



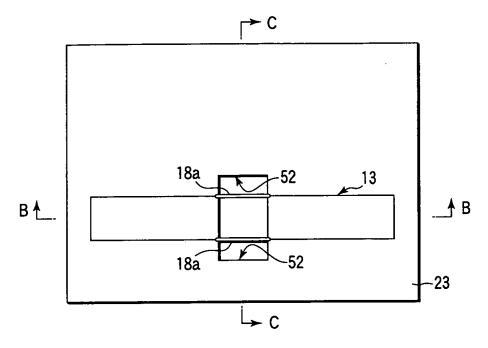
F I G. 72A



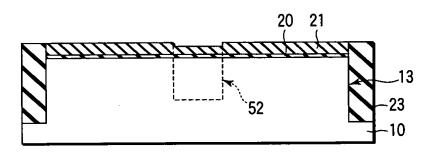
F I G. 72B



F I G. 72C



F I G. 73A



F I G. 73B

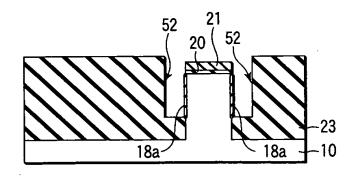
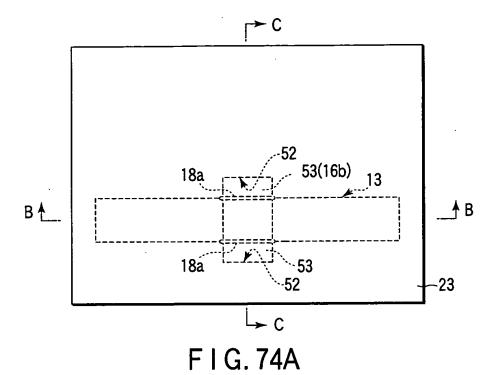
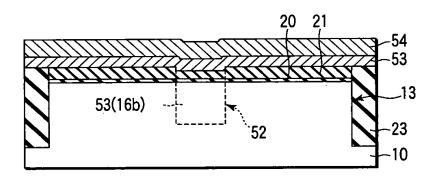


FIG. 73C





F I G. 74B

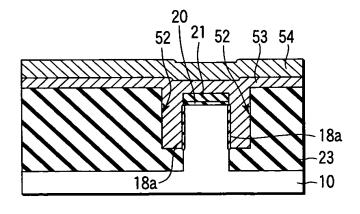
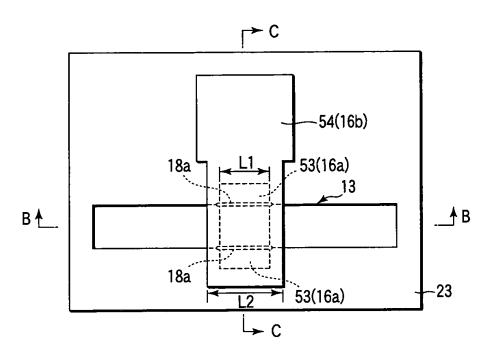
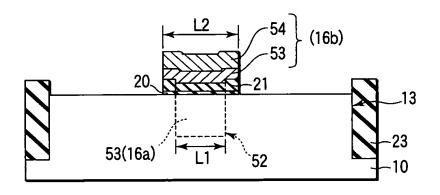


FIG. 74C



F I G. 75A



F I G. 75B

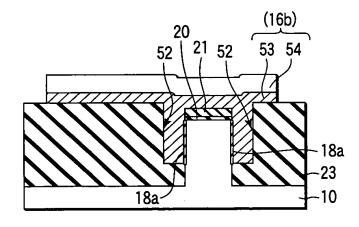
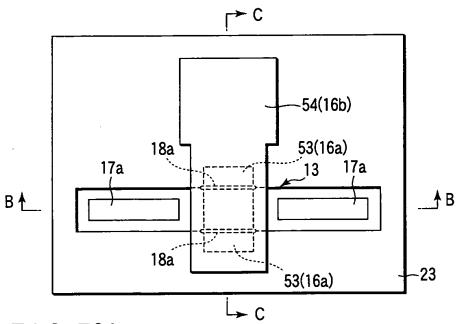
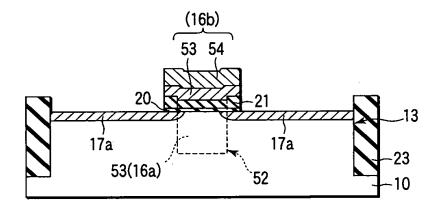


FIG. 75C



F I G. 76A



F I G. 76B

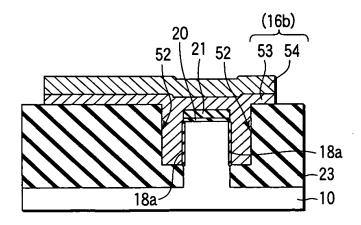
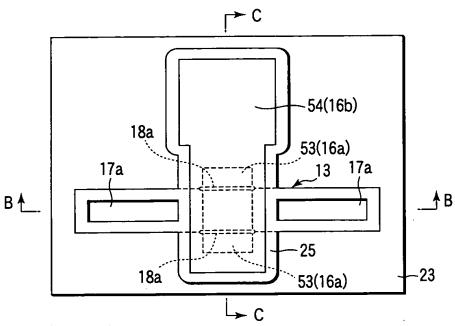
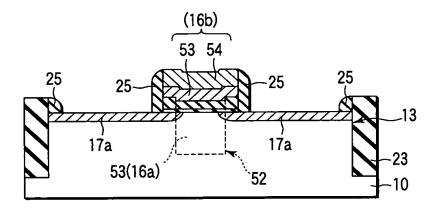


FIG. 76C



F I G. 77A



F I G. 77B

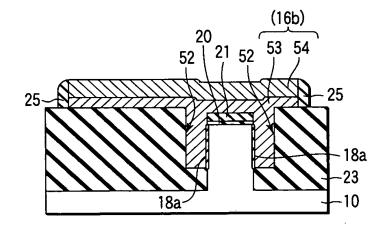
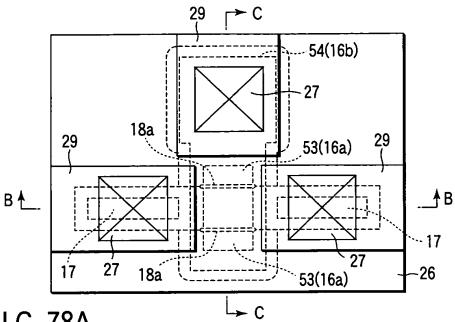
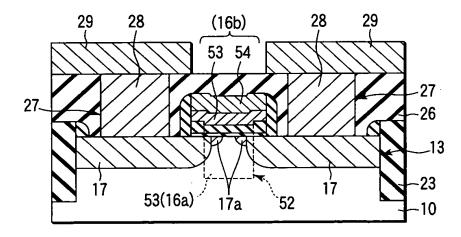


FIG. 77C



F I G. 78A



F I G. 78B

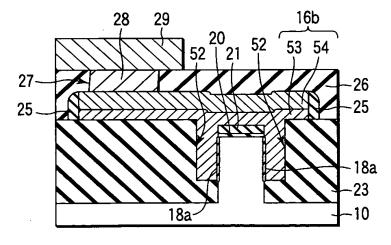
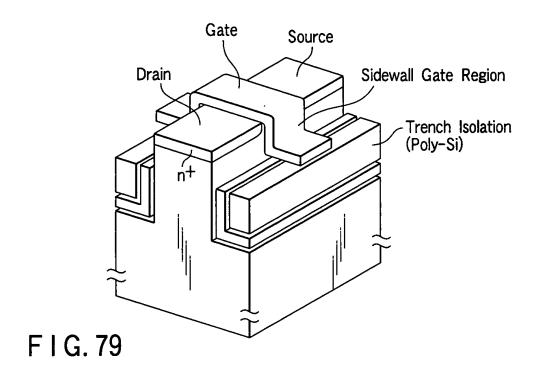
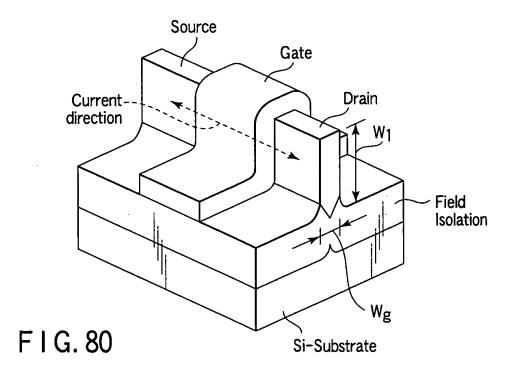


FIG. 78C

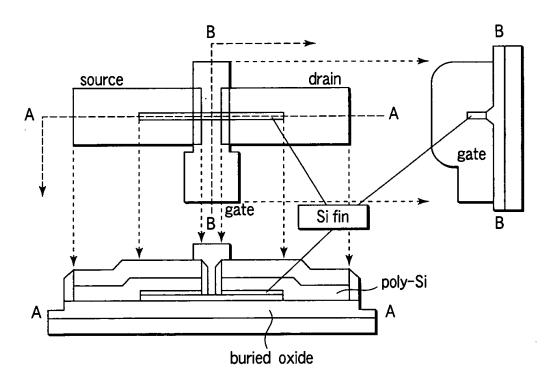
Trench Isolated (TIS) Transistor (1987 IEDM)



DELTA STRUCTURE (1989 IEDM)



Folded-channel MOSFFT (1998 IEDM)



F I G. 81